

CLAIMS

What is claimed is:

1. A method of computing a responsive confidence score in response to a suggested valuation of a subject property, using a computer system,
5 comprising the steps of:
inputting into the computer system identity data of the subject property;
inputting into the computer system the suggested valuation of the subject property; and
computing a responsive confidence score for the suggested valuation of the
10 subject real property.
2. The method as described in claim 1 wherein said responsive confidence score is computed using a reference table on a tangible medium.
3. The method as described in claim 2 further including the steps of
inputting into the computer system a directive valuation of the subject
15 property;
computing a difference between the directive valuation and the suggested valuation; and
inputting the directive valuation, the suggested valuation and a difference between them into said reference table;
20 to thereby compute a responsive confidence score for the suggested valuation of the subject real property.
4. The method as described in claim 3 wherein said directive valuation is computed using an automated valuation model.

5. The method as described in claim 3 wherein said automated valuation model provides a directive valuation having a directive confidence score.

6. The method as described in claim 4 wherein said directive confidence score associated with said directive valuation is inputted into the computer.

5 7. The method as described in claim 3 wherein said confidence score of said automated valuation model is based on a predetermined percentage probability of unacceptable excess valuation.

8. The method as described in claim 3 wherein the difference between the directive valuation and the suggested valuation is computed as a percentage
10 difference.

9. The method as described in claim 2 wherein the reference table is constructed by

computing a plurality of directive confidence scores based on sales prices of a plurality of previously sold properties;

15 computing adjusted confidence scores which are different from the associated directive confidence scores; and

adjusting the table for monotonicity.

10. The method as described in claim 9 wherein each directive confidence score is a numerical score of the percentage probability of unacceptable excess
20 valuation.

11. The method as described in claim 3 wherein said directive valuation is computed using an automated valuation model.

12. The method as described in claim 11 wherein the automated valuation model provides a directive valuation having a confidence score.

13. The method as described in claim 12 wherein the confidence score of the automated valuation model is based on a predetermined percentage probability of unacceptable excess valuation.

14. The method as described in claim 3 wherein the difference between the directive valuation and the suggested valuation is computed as a percentage difference.

15. The method as described in claim 2 wherein the reference table is constructed by:

computing a set of automated valuations and automated directive confidence scores for a plurality of properties for which actual sale prices are known; and computing a responsive confidence score with reference to said set of computed automated valuations and automated directive confidence scores, said actual sale prices, and said suggested valuation of said subject property.

16. A method as set forth in claim 1, including the steps of:

providing a subject property AVM valuation and a subject property preliminary confidence score; and

computing said responsive confidence score with reference to said subject property AVM valuation, said subject property preliminary confidence score, and said suggested valuation of said subject property.

17. A method as set forth in claim 16, further comprising the steps of:

providing a data set including a plurality of sold properties and a sold property sale price for each of said sold properties;

providing a sold property AVM valuation and a sold property preliminary confidence score for each sold property in said data set;

dividing said data set into subsets each containing only properties having a single value of the sold property preliminary confidence score;

for each said subset, determining a first percentage of properties therein whose sold property AVM valuation divided by said sold property sale price exceeds a first overvaluation criterion;

for each said subset, determining a sold property directive confidence score with reference to said first percentage and associating said sold property directive confidence score of said subset with each property in said subset;

from said data set, selecting all properties whose said directive confidence score equals the directive confidence score of the subset whose preliminary confidence score equals said preliminary confidence score of said subject property;

for said selected properties, determining a second percentage thereof for which said sold property AVM valuation divided by said sold property sale price exceeds a second overvaluation criterion; and

determining a responsive confidence score for subject property with reference to said second percentage.

18. A method as set forth in claim 17, wherein said first overvaluation criterion is fixed at a predetermined level of unacceptable excess valuation.

19. A method as set forth in claim 17, wherein said second overvaluation criterion is determined with reference to a subject property adjustment factor.

20. A method as set forth in claim 16, further comprising the steps of:

providing a data set including a plurality of sold properties and a sold property sale price for each of said properties;

providing a sold property AVM valuation and a sold property preliminary confidence score for each sold property in said data set;

sorting said data set into preliminary subsets according to the value of said sold property preliminary confidence score;

for each said preliminary subset, determining a first percentage of properties therein for which said sold property AVM valuation divided by said sold property sale price exceeds a first overvaluation criterion;

for each said preliminary subset, determining a sold property directive confidence score with reference to said first percentage and associating said sold property directive confidence score of said subset with each property in said subset;

sorting said data set into secondary subsets according to the value of said sold property directive confidence score of each property in said data set;

generating a plurality of numerical values representing a range of property adjustment factors;

for each of said numerical values, for each of said secondary subsets, determining a second percentage of properties for which said sold property AVM valuation divided by said sold property sale price exceeds a second overvaluation criterion, said second overvaluation criterion being determined with reference to said numerical value;

for each said numerical value, for each of said secondary subsets, determining a responsive confidence score with reference to said second percentage;

selecting the secondary subset whose said sold property directive confidence score is equal to said sold property directive confidence score of said preliminary subset whose said sold property preliminary confidence score equals said subject property preliminary confidence score; and

providing the responsive confidence score for the subject property by selecting, from said responsive confidence scores of said selected secondary subset, the

responsive confidence score that results when the numerical value is fixed at the value of said subject property adjustment factor.

21. A method as set forth in claim 20, wherein said first overvaluation criterion is fixed at a predetermined level of unacceptable excess valuation.

5 22. A method as set forth in claim 20, wherein said second overvaluation criterion is defined by the algebraic statement,

“(SOLD PROPERTY AVM VALUATION / SOLD PROPERTY SALE PRICE)

➤ $[(1 + \text{first overvaluation criterion}) / (1 + \text{property adjustment factor})]$,”

10 23. A method as set forth in claim 20, including the step, after said step of determining said responsive confidence score for each of said subsets at each of said values of said property adjustment factor of:

15 identifying, among said responsive confidence scores resulting from a plurality of said subsets at a single value of said property adjustment factor, a sequence of said responsive confidence scores which does not vary monotonically with respect to said directive confidence scores of said subsets; and

within said sequence, changing a responsive confidence score by an amount sufficient that said sequence varies monotonically with respect to said directive confidence scores of said subsets.

24. A method as set forth in claim 16, further comprising the steps of:

20 providing a data set including a plurality of sold properties and a sold property sale price for each of said sold properties;

providing a sold property AVM valuation and a sold property preliminary confidence score for each sold property in said data set;

25 determining, for each sold property in said data set, whether said sold property AVM valuation divided by said sold property sale price exceeds a predetermined

overvaluation criterion, said overvaluation criterion being determined with reference to said subject property AVM valuation and said suggested valuation of said subject property;

selecting a subset of said sold properties for which said sold property preliminary confidence score is equal to said subject property preliminary confidence score;

determining the proportion of sold properties in said subset for which said sold property AVM valuation exceeds said sold property sale price by said overvaluation criterion; and

determining said responsive confidence score of the subject property with reference to said proportion.

25. A method as set forth in claim 16, further comprising the steps of:

providing a data set including a plurality of sold properties and a sold property sale price for each of said properties;

providing a sold property AVM valuation and a sold property preliminary confidence score for each sold property in said data set;

sorting said data set into subsets according to the value of said preliminary confidence score;

determining, for each property in said data set, whether said sold property AVM valuation divided by said sold property sale price exceeds a predetermined overvaluation criterion;

for each of said subsets, determining the proportion of properties in said subset for which said sold property AVM valuation divided by said sold property sale price exceeds a predetermined overvaluation criterion;

selectively modifying the value of said proportion, where said proportion does not vary monotonically with said preliminary confidence score, such that said

proportion, as modified, varies monotonically with said preliminary confidence score;

selecting a subset of said properties for which said preliminary confidence score has a particular value; and

- 5 after said step of selectively modifying has been performed, determining said responsive confidence score of the subject property with reference to the value of said proportion for said selected subset, said preliminary confidence score of said subject property, and said suggested valuation of said subject property.

- 10 26. A method of providing a responsive confidence score in response to a proposed valuation of a subject property, using a computer system, the method comprising the steps of:

obtaining identifying information about the subject property;

obtaining a proposed valuation of the subject property;

- 15 providing a directive automated valuation and a directive automated confidence score for the subject property;

computing a valuation adjustment factor based on a percentage difference between said proposed valuation by said automated valuation; and

providing a responsive confidence score determined with reference to said valuation adjustment factor and said automated confidence score.

- 20 27. The method as set forth in claim 26, wherein said step of providing said responsive confidence score includes the steps of:

maintaining a reference table of correspondence in the computer system, said reference table of correspondence providing a responsive confidence score table entry associated with an ordered pair comprising said valuation adjustment

- 25 factor and said automated confidence score;

identifying the entry therein associated with said valuation adjustment factor and said automated confidence score; and

reporting a responsive confidence score determined as a function of said entry.

28. The method as set forth in claim 27, wherein said step of maintaining a reference table of correspondence in said computer system includes the steps of:

maintaining in said computer system a data set of properties for which both a directive AVM valuation and a known sale price is available;

determining, for each of said set of properties in said data set, whether a right tail error is committed at each of a plurality of values of said valuation adjustment factors;

determining, with reference to said data set of properties, a probability of right tail error associated with each of said plurality of adjustment factors; and

selecting one probability value associated with said determined values of said valuation adjustment factor and said automated confidence score; and

reporting a responsive confidence score computed as a function of said selected probability value.

29. The method as set forth in claim 26, wherein said percentage difference is computed by dividing said proposed valuation by said automated valuation.

30. A reference table for use in computing a responsive confidence score for a suggested valuation of a subject real property, said reference table being fixed on a tangible medium and computed by the following method:

computing a plurality of directive confidence scores based on sales prices of a plurality of the previously sold properties;

computing adjusted confidence scores for suggested valuations which are different from the associative directive confidence scores; and

adjusting the table for monotonicity.

31. The method of claim 30 wherein the directive confidence score is computed using an automated valuation model.

32. The method as described in claim 31 wherein said automated valuation
5 model provides a directive valuation having a confidence score.

33. The method as described in claim 32 wherein the automated valuation model is based on a predetermined percentage probability of unacceptable excess valuation.